

cost of \$78.98). The trial evaluated the percent of patients achieving target intraocular pressures (IOPs). The cost of treatment to achieve the target was calculated as medication cost divided by effectiveness based on patients achieving a target IOP of ≤ 17 mmHg. This target was chosen based on the Advanced Glaucoma Intervention Study (AIGS) which indicated patients whose pressures were below 18 mmHg did not progress over a 6-year period. The cost-effectiveness calculation was based on cost and efficacy data during the two-month study period. **RESULTS:** With bimatoprost, 59% of patients reached and maintained a target IOP of ≤ 17 mm vs. 30% with latanoprost plus adjunctive medicines ($p < 0.05$). Common adjunctive medicines used were beta blockers (44%), alpha-agonists (27%), CAIs (15%), Cosopt (9%), and others (5%). The 2-month cost-effectiveness ratio was \$279 vs. \$784 per successfully treated patient for bimatoprost vs. the latanoprost plus adjunctive treatments, respectively. The monthly incremental cost-effectiveness ratio with brimonidine dominated all treatments with latanoprost. **CONCLUSIONS:** Due to a greater percentage of glaucoma patients achieving a target treatment of ≤ 17 mmHg (considered effectiveness) with bimatoprost, bimatoprost monotherapy has a more favorable cost-effectiveness profile than a combination of latanoprost plus adjunctive treatments.

PES3

A MODEL-BASED PHARMACOECONOMIC ANALYSIS OF BRIMONIDINE TARTATE 0.2% AS AN ADJUNCTIVE THERAPY TO BETA-BLOCKERS IN THE TREATMENT OF GLAUCOMA OR OCULAR HYPERTENSION IN ADULT PATIENTS IN NORWAY

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OBJECTIVES: Glaucoma is a condition affecting one or both eyes with raised intraocular pressure (IOP). The IOP should be reduced to prevent progression of visual field loss. The objective of the present study was to compare the cost-effectiveness of brimonidine tartate 0.2% (Alphagan) with dorzolamide 2% (Trusopt) as adjunctive therapies to beta-blockers in the treatment of adult glaucoma patients in Norway. **METHODS:** A model based on effectiveness and resource-use data from an RCT was constructed. The RCT covered 106 adult patients having beta-blockers with inadequately controlled IOP. The major cost-driver was patients who did not reach target IOP (≤ 17 mmHg) and needed additional adjunctive therapies. The change to another adjunctive therapy in the model triggered more expensive medication and extra follow-up visits at the ophthalmologist. The model analysed cost-effectiveness from a societal perspective within a 3-months time horizon. Norwegian unit costs

were included. The measure of effectiveness was "patients achieving target IOP". To handle uncertainty sensitivity analyses (one-way, break-even, extreme scenario) were undertaken. **RESULTS:** The RCT showed that 78% of the patients using brimonidine and 37% using dorzolamide achieved target IOP. The baseline cost-effectiveness of brimonidine was NOK 1234 per patient achieving target IOP compared with NOK 2769 for dorzolamide ($1\text{€} = 7.28$ NOK). These results were strengthened by the fact that brimonidine was cheaper and more effective (dominating strategy) for all IOP levels between 13–20 mmHg. Even in the worst case brimonidine was still cost-effective comparing with the best case for dorzolamide. The break-even price for brimonidine was NOK 634 compared with NOK 133 in the baseline analysis. **CONCLUSION:** Brimonidine was more cost-effective (dominating) as adjunctive-therapy to beta-blockers than dorzolamide. Based on this result Norwegian ophthalmologists and others should consider brimonidine in future decision-making regarding choice of adjunctive therapies in glaucoma treatment.

PES4

COST-EFFECTIVENESS OF BIMATOPROST 0.03% VERSUS A COMBINATION PRODUCT OF TIMOLOL 0.5% AND DORZOLAMIDE 2.0% FOR GLAUCOMA

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OBJECTIVES: To evaluate the cost-effectiveness of bimatoprost 0.03% versus a combination product of timolol 0.5% and dorzolamide 2.0% in the treatment of glaucoma. **METHODS:** A pharmacoeconomic model was constructed based on a 3-month randomized controlled efficacy-trial comparing Lumigan (bimatoprost 0.03%, a prostamide AWP of \$53.13) and Cosopt (a fixed combination product of timolol 0.5% and dorzolamide 2.0% AWP of \$43.85). The trial evaluated the percent of patients achieving target intraocular pressures (IOPs) throughout the day. The cost of treatment to achieve target was calculated as medication cost/expected effectiveness based on patients achieving a target IOP of ≤ 17 mmHg. Cost-effectiveness was based on three months of the trial treatment. **RESULTS:** With bimatoprost, 30% of patients reached and maintained a target IOP of ≤ 17 mmHg for all measurements throughout the day vs. 17% with the combination product ($p < 0.05$). At three-months, cost-effectiveness ratios were \$531 vs. \$774 per successful patient for bimatoprost vs. the combination-product. The incremental cost-per additional treatment success with bimatoprost was \$214. **CONCLUSIONS:** Due to a greater percentage of glaucoma patients achieving ideal target treatment goals (considered effectiveness) with bimatoprost 0.03%, bimatoprost monotherapy has a more favorable cost-effectiveness profile than a combination of timolol 0.5% and dorzolamide 2.0%.